

REMARKS

The Office Action of June 1, 2005 has been received and its contents carefully considered. Claims 1 to 8, 10, 12 to 17 and 19 to 25 are all the claims pending in the application, prior to the present amendment.

Claims 1, 3, 4, 8, 10, 12, 14, 16 and 20 have been rejected under 35 U.S.C. § 103(a) as obvious over Shukh et al in view of Akiyama et al for the reasons as set forth in the previous Office Action of July 14, 2004.

Applicants submit that Shukh et al and Akiyama et al et al do not disclose or render obvious the presently claimed invention and, accordingly, request withdrawal of this rejection.

Applicant have amended claim 1 to recite the presence of a nonmagnetic intermediate layer and to state that the “nonmagnetic intermediate layer is provided between the orientation control layer and the perpendicular magnetic layer”. Support for this recitation is found at page 13, lines 14-17 of the specification. A similar amendment has been made to independent claims 16 and 20.

In addition, new claims 26-29 have been added which recite the presence of “a magnetization stabilizing layer provided between the perpendicular magnetic layer and a protective layer”. Supports for this recitations is found at page 21 (the third embodiment), lines 1-7, and FIG. 6 (reference numeral 7).

Applicants submit that none of the cited references teaches or suggests the nonmagnetic intermediate layer of claims 1, 16 and 20 or the magnetization stabilizing layer provided above the perpendicular magnetic layer of claims 26-29.

The provision of the nonmagnetic intermediate layer advantageously improves the orientability and the coercive force of the perpendicular magnetic layer.

Furthermore, the provision of the nonmagnetic intermediate layer advantageously improves the thermal demagnetization resistance and the reproducing output.

Shukh et al teach a lamination structure comprising a substrate (38), a soft magnetic layer (40), a spacer layer (42), a perpendicular magnetic layer (44), and a protective layer (46).

Although the spacer layer (42) disclosed in Shukh et al can be regarded to correspond to the orientation control layer of the presently claimed invention, applicants submit that Shukh et al fail to teach the nonmagnetic intermediate layer or the magnetization stabilizing layer of the presently claimed invention.

Similarly, although Akiyama et al teach in FIG. 3 a lamination structure comprising a substrate (21), a soft magnetic layer (22), an interlayer (24), a perpendicular magnetic layer (23), and a protective layer (29), applicants submit that Akiyama et al fail to teach the nonmagnetic intermediate layer or the magnetization stabilizing layer of the presently claimed invention.

In view of the above, applicants submit that Shukh et al and Akiyama et al do not disclose or render obvious the presently claimed invention and, accordingly, request withdrawal of this rejection.

Claims 2, 5-7, 13, 15, 17, 19 and 21 have been rejected under 35 U.S.C. § 103(a) as obvious over Shukh et al in view of Akiyama et al and further in view of Tang et al for the reasons set forth in the previous Office Action of July 14, 2004.

Applicants submit that Shukh et al, Akiyama et al and Tang et al do not disclose or render obvious the presently claimed invention and, accordingly, request withdrawal of this rejection.

Each of these claims depend ultimately from one of claims 1, 16 and 20. Accordingly, applicants submit that these claims are patentable for the same reasons as discussed above in connection with the rejection of claims 1, 16 and 20 over Shukh et al and Akiyama et al.

Further, Tang et al teach in FIG. 1 a lamination structure comprising a substrate (30), a keeper layer (soft magnetic layer) 31, a nucleating layer (32), a perpendicular magnetic layer (34), a nonmagnetic layer (35), and a protective layer (36). Although the nucleating layer (32) of Tang et al can be regarded to correspond to the orientation control layer of the claimed invention, applicants submit that the nonmagnetic layer (35) of Tang et al is not a soft magnetic and thus does not correspond to the magnetization stabilizing layer of the presently claimed invention of new claims 26 to 29. Accordingly, Tang et al is silent about the nonmagnetic intermediate layer

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of claims 1, 16 and 20 and the magnetization stabilizing layer of new claims 26 to 29 of the presently claimed invention.

In view of the above, applicants submit that Shukh et al, Akiyama et al and Tang et al do not disclose or render obvious the presently claimed invention and, accordingly, request withdrawal of this rejection.

Claims 22-25 have been rejected under 35 U.S.C. § 103(a) as obvious over Shukh et al in view of Akiyama et al and in view of U.S. Patent 4,687,712 to Sugita et al.

Applicants submit that Shukh et al, Akiyama et al and Sugita et al do not disclose obvious the presently claimed invention and, accordingly, request withdrawal of this rejection.

The Examiner particularly relies on the disclosure of Sugita et al at column 3, lines 31 to 40, column 5, lines 9-16, embodiment 2 of Sugita and Figure 9 of Sugita.

Sugita et al teach in FIG. 9 a lamination structure comprising a substrate (12), a soft magnetic layer (14), an orientation control layer (16), and a perpendicular magnetic layer (2).

However, applicants submit that Sugita et al fail to teach or suggest the nonmagnetic intermediate layer of claims 1, 16 and 20 or the magnetization stabilizing layer of claims 26 to 29 of the presently claimed invention, either in Fig. 9 of Sugita et al or anywhere else in Sugita et al.

In view of the above, applicants submit that Shuku et al, Akiyama et al and Sugita et al do not render obvious the presently claimed invention and, accordingly, request withdrawal of this rejection.

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In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

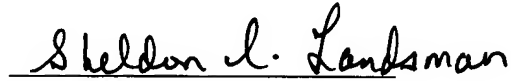
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